What is Claimed:

1. A pair of medical electrodes comprising:

a first electrode including:

a first electrically conductive coating of a first metal and a first amount of metal chloride; and

a second electrode including:

a second electrically conductive coating of a second metal and a second amount of metal chloride, said second amount of metal chloride being greater than said first amount of metal chloride.

2. A pair of medical electrodes comprising:

a first electrode including:

a first electrically conductive gel pad including a first buffer; and

a second electrode including:

a second electrically conductive gel pad including a second buffer.

3. A pair of medical electrodes for delivering high-energy defibrillation or stimulation, said pair of electrodes comprising:

a first electrode including:

a first electrode member having a first top face and a first bottom face,

a first electrically conductive coating of a first metal and a first amount of metal chloride, said first coating being disposed on said first bottom face, and

a first electrically conductive gel pad disposed on said first coating; and

a second electrode including:

a second electrode member having a second top face and a second bottom face,

a second electrically conductive coating of a second metal and a second amount of metal chloride, said second coating being disposed on said second bottom face, said second amount of metal chloride being greater than said first amount of metal chloride, and

a second electrically conductive gel pad disposed on said second coating.

4. The pair of electrodes of claim 3, said first electrode further comprising a first insulative cover sheet disposed on said first top face, and said second electrode further comprising a second insulative cover sheet disposed on said second top face.

5. The pair of electrodes of claim 3 additionally comprising a first electrical connector in contact with said first top face and a second electrical connector in contact with said second top face, said first and second electrical connectors for delivering energy to and transmitting energy from said first and said second electrodes.

6. The pair of electrodes of claim 3, said first electrode further comprising a first removable release carrier sheet disposed on said first gel pad before use of said first electrode, and said second electrode further comprising a second removable release carrier sheet disposed on said second gel pad before use of said second electrode.

7. The pair of electrodes of claim 3, wherein said first metal and said second metal are silver.

8. The pair of electrodes of claim 3, wherein said metal chloride in said first and said second electrically conductive coating is silver chloride.

9. The pair of electrodes of claim 3, wherein said first electrode is a positive electrode and said second electrode is a negative electrode.

10. The pair of electrodes of claim 3, wherein said first electrical connector and said second electrical connector comprise a fanned wire.

11. The pair of electrodes according to claim 3, wherein

said first electrically conductive coating comprises:

(a) a first center with a first amount of a first conductor,

(b) a first inner edge defining the terminus of said first center and a first step at which said conductor drops from said first amount of said first conductor to a second amount of said first conductor,

(c) a first outer edge defining the terminus of said first coating and at which said first conductor is substantially absent, and

(d) a first predetermined gradient disposed between said first inner edge and said first outer edge; and

said second electrically conductive coating comprises:

(a) a second center with a first amount of a second conductor,

(b) a second inner edge defining the terminus of said second center and a second step at which said second conductor drops from said first amount of said second conductor to a second amount of said second conductor,

(c) a second outer edge defining the terminus of said second coating and at which said second conductor is substantially absent, and

(d) a second predetermined gradient disposed between said second inner edge and said second outer edge.

12. The pair of electrodes of claim 3 wherein each of said first electrode and said second electrode are an electrically conductive, carbon-filled polymer, and each of said first gel pad and said second gel pad comprises a skin-compatible hydrogel.

13. The pair of electrodes of claim 3 wherein each of said first electrode member and said second electrode member have an area of at least 50 cm2.

14. The pair of electrodes of claim 10, wherein said fanned wire comprises conductive, copper-nickel coated carbon fibers.

15. The pair of electrodes of claim 3 wherein each of said first coating and said second coating is an ink coating.

16. A pair of medical electrodes for delivering high-energy defibrillation or stimulation, said pair of electrodes comprising:

a first electrode including:

a first electrode member having a first top face and a first bottom face,

a first electrically conductive coating of a first metal and a first amount of metal chloride, said first coating being disposed on said first bottom face, and

a first electrically conductive gel pad disposed on said first coating, said first gel pad including a first buffer; and

a second electrode including:

a second electrode member having a second top face and a second bottom face,

a second electrically conductive coating of a second metal and a second amount of metal chloride, said second coating being disposed on said second bottom face, and

a second electrically conductive gel pad disposed on said second coating, said second gel pad including a second buffer.

17. The pair of electrodes of claim 16 wherein said first buffer is selected from the group consisting of piprizene dihydrochloride in combination with glycylglycine and sodium hydrogen maleate.

18. The pair of electrodes of claim 16 wherein said second buffer is selected from the group consisting of piprizene dihydrochloride in combination with glycylglycine and sodium hydrogen maleate.

19. The pair of electrodes of claim 16 wherein said second amount of metal chloride is greater than said first amount of metal chloride.

20. The pair of electrodes of claim 16, said first electrode further comprising a first insulative cover sheet disposed on said first top face, and said second electrode further comprising a second insulative cover sheet disposed on said second top face.

21. The pair of electrodes of claim 16 additionally comprising a first electrical connector in contact with said first top face and a second electrical connector in contact with said second top face, said first and second electrical connectors for delivering energy to and transmitting energy from said first and said second electrodes respectively.

22. The pair of electrodes of claim 16, said first electrode further comprising a first removable release carrier sheet disposed on said first gel pad before use of said first electrode, and said second electrode further comprising a second removable release carrier sheet disposed on said second gel pad before use of said second electrode.

23. The pair of electrodes of claim 16, wherein said first metal and said second metal are silver.

24. The pair of electrodes of claim 16, wherein said metal chloride in said first and said second electrically conductive coating is silver chloride.

25. The pair of electrodes of claim 16, wherein said first electrode is a positive electrode and said second electrode is a negative electrode.

26. The pair of electrodes of claim 16, wherein said first electrical connector and said second electrical connector comprises a fanned wire.

27. The pair of electrodes according to claim 16, wherein

said first electrically conductive coating comprises:

(a) a first center with a first amount of a first conductor,

(b) a first inner edge defining the terminus of said first center and a first step at which said first conductor drops from said first amount of said first conductor to a second amount of said first conductor,

(c) a first outer edge defining the terminus of said first coating and at which said first conductor is substantially absent, and

(d) a first predetermined gradient disposed between said first inner edge and said first outer edge; and

said second electrically conductive coating comprises:

(a) a second center with said first amount of a second conductor,

(b) a second inner edge defining the terminus of said second center and a second step at which said second conductor drops from said first amount of said second conductor to a second amount of said second conductor,

(c) a second outer edge defining the terminus of said second coating and at which said second conductor is substantially absent, and

(d) a second predetermined gradient disposed between said second inner edge and said second outer edge.

28. The pair of electrodes of claim 16 wherein each of said first electrode and said second electrode are an electrically conductive, carbon-filled polymer, and each of said first gel pad and said second gel pad comprises a skin-compatible hydrogel.

29. The pair of electrodes of claim 16 wherein each of said first electrode member and said second electrode member have an area of at least 50 cm2.

30. The pair of electrodes of claim 26, wherein said fanned wire comprises conductive, copper-nickel coated carbon fibers.

31. The pair of electrodes of claim 16 wherein each of said first coating and said second coating is an ink coating.

32. The pair of electrodes of claim 3 wherein said first gel pad comprises a first buffer, and said second gel pad comprises a second buffer.

33. The pair of electrodes of claim 32 wherein said first buffer is selected from the group consisting of piprizene dihydrochloride in combination with glycylglycine and sodium hydrogen maleate.

34. The pair of electrodes of claim 32 wherein said second buffer is selected from the group consisting of piprizene dihydrochloride in combination with glycylglycine and sodium hydrogen maleate.